Ectropium of both Upper Eyelids.

Prof. VON ZEHENDER, of Rostock, at the late meeting of the Congress of German Surgeons (*Med. Examiner*, May, 3, 1877) presented a boy, æt. 5, who had been suffering from serious ectropium of both upper eyelids, caused by caries of the orbital roof. Three weeks ago he had performed an operation for the ectropium on the right side by transplanting a large piece of skin (6 cm. by 3 cm.) taken from the upper arm of the same side. Dr. von Zehender asserted that pieces of skin of this size had not been often successfully transplanted before, and believed that they could only be satisfactorily employed after previous preparation. He therefore carefully removed with a pair of Cooper's scissors all the fat and loose tissue adhering to the piece of skin, making the inner surface look quite smooth. When thus prepared, it would apply itself very easily and closely to the surface of the wound it was destined to cover. Wolfe, of Glasgow, was the first to recommend this method, after having treated two such cases very successfully. Wadsworth, of Boston, had also operated in the same way, and with great success. These cases had to be discriminated from those operations in which the replacement was effected by multiple transplantation. Wolfe's cases above mentioned and the one now described were the only instances known in which the deficient part of the lid was restored by the application of a *large* and single piece of skin, and the case presented was the only one in which the operation had been performed on the upper lid.

A Means of Diagnosis of Anomalies in the Sound-conducting Apparatus.

Professor GRUBER, of Vienna, gives in the *Allgem. Wiener Mediz. Zeitung*, No. 7, 1877, a new means of diagnosis of anomalies of the tympanic cavity.

When the tuning fork is vibrating close to the external meatus of a healthy ear, and Valsalva's method is done, the sound is decreased by the increased outward tension of the membrana tympani. Gruber accordingly argues therefrom, that if the patient, when this experiment is made, do not notice that the sound is decreased, the membrane has already a *plus* tension outwards; while, if the patient hear better under the same condition, there is a *minus* tension.

If a vibrating tuning fork be placed on the head, and Valsalva's method be performed, the sound is increased to a normal ear, while, if there be *plus* tension, the sound is not changed; but if there be *minus* tension, it is decreased, as the membrane is made more capable of transmitting sounds than when lax.

The two methods act as controllers to each other, which gives this entirely subjective diagnosis much more importance.—*London Med. Record*, May 15, 1877.

MIDWIFERY AND GYNÆCOLOGY.

On Fibroid Tumour complicating Delivery.

Dr. PLAYFAIR, at a late meeting of the Obstetrical Society of London (*Lancet*, April 21, 1877), related three cases in which delivery was complicated by fibroid tumours. In the first case the presence of a fibroid tumour was recognized before marriage; it was so large as to fill the pelvis. Dr. Farre had succeeded in pushing it out of the pelvis into the abdominal cavity. Pregnancy was accompanied by much suffering, but delivery took place naturally. No hemorrhage followed, and the tumour, which immediately after delivery reached a foot above the pubes, had, six months after, diminished in size so that it could be discovered only by

the bimanual method of examination. A second labour took place naturally. In the second case there were two large fibroid tumours situated at the fundus and sides of the uterus. The pains became feeble, and the forceps were resorted to. There was no post-partum hemorrhage; six months afterwards the presence of the fibroids could with difficulty be detected. The third case was a multipara. Labour had begun, and a large fibroid was discovered filling the pelvis, jammed down in front of the fœtal head. It had a diffuse broad base, growing apparently from the posterior wall of the uterus. The mass could not be removed by enucleation or the écraseur, and the space between it and the pubes was only an inch and three-quarters. The hand was introduced into the vagina, and pressure made on the tumour, with a view to push it up out of the pelvis. Eventually this object was attained, and the forceps were applied to the head, and delivery rapidly effected. No hemorrhage followed. This case was unsuited for enucleation on account of the character of the growth. In such cases action should be taken early, and an effort made at repression before having recourse to more desperate measures.

Dr. BARNES said that the difficulties and dangers associated with this complication varied the seat of the tumour. When the growth projected into the cavity of the uterus the danger was very great; when situated in the lower segment of the uterus, enormous. In the latter case the tumour may be crushed, sphacelate, and give rise to pyæmia. There can be no doubt that fibroid tumours may atrophy; they are occasionally expelled. Hemorrhage depends on the seat of the tumour.

Dr. BRAXTON HICKS said that not only small but large tumours opposing labour might be removed when situated in the lower segment of the uterus. He had removed successfully a mass as large as the fœtal head. Some cases which appeared unpromising during early pregnancy improved during the course of gestation, so as not to give any trouble. When these conditions are met with during active labour, they should be treated mechanically.

Dr. GODSON said that in a case under his care large masses were discharged, and the tumour disappeared.

Dr. MURRAY had seen relief to the bowels brought about by pressing the tumour from the pelvis by means of the hand introduced into the rectum.

Dr. DE GORREQUER GRIFFITH had seen three cases of this complication: two without a bad symptom; the third complicated by post-partum hemorrhage. During gestation the tumour increased, but afterwards diminished in size.

Dr. HAYES referred to a case in which death took place from hemorrhage before delivery. A fibroid, about the size of a Tangerine orange, which was easily enucleated after death, was found in the anterior wall of the cervix. The placenta was not prævia.

Dr. EDIS thought the best posture to effect reposition was the genu-pectoral.

After a few remarks from the President, Dr. PLAYFAIR replied, saying that post-partum hemorrhage occurred in some of these cases, but it did not appear to be so common as one would expect.

Ether-spray externally in Post-partum Hemorrhage.

Mr. W. HANDSELL GRIFFITHS was recently consulted in two cases of severe post-partum hemorrhage. In both cases every means had been adopted but unavailingly. It flashed across his mind in the first case to try the effect of the ether-spray, and accordingly he directed a large spray over the abdominal walls, along the spine, and over the genitals; the uterus at once responded, and the cessation of the hemorrhage was almost immediate. In the second case he lost no time in adopting a similar treatment, and with an equally successful result.

He has consulted several eminent obstetric practitioners in Dublin, and was informed by them that they are not aware that this treatment has been heretofore proposed. The advantages of the ether-spray over the application of cold water and the other means usually adopted in these cases must be patent to every practitioner of midwifery.—*Practitioner*, March, 1877.

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The Causation, Diagnosis, and Treatment of Uretero-vaginal Fistula.

Uretero-vaginal fistulæ without any complications are rare. Only four cases are known, two reported by Simon, one by Alguré, and the fourth by Panas. Landau (*Archiv de Gynecol.*, Sept. 1876) now brings forward a fifth. These fistulæ are nearly always occasioned by obstetrical manœuvres, but in Landau's case it was caused by the pressure of a pessary. The symptoms of this affection are the running away of clear, transparent urine, and at the same time the voluntary passing of urine altered according to the time it has been in the bladder, the high as well as lateral situation of the fistula, and following the course of the ureter, and the possibility of passing a catheter both upwards and downwards.

Attempts to close the fistula have ordinarily failed. Simon tried paring the edges and uniting transversely, Alguré and Panas cauterized. These results were so bad that the classical works on the subject recommended as a chief and last resource closure of the vagina. Landau differs from this, and points out that success may result if the two following points are attended to: the avoiding any compression of the ureter and the allowing the continual flow of the urine.

Then the vivifying of the edges should not pass beyond the superior limits of the fistula on account of the proximity of the peritoneum. Landau suggests that a catheter be passed through the lower end of the ureter into the bladder and out at the urethra, then that the catheter be passed up the upper end of the ureter, then vivify the edges of the fistula laterally and bring them together in the long axis of the ureter. If the catheter cannot be passed through the lower part of the ureter into the bladder, that part of the ureter must be incised into the bladder, and so the urethro-vesical fistula be converted into a vesico-vaginal at the upper end of which the ureter opens, then pare the edges and bring them together as above described.—*Brit. and For. Med.-Chir. Rev.*, April, 1877.

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Removal of large Fibroid Uterus and both Ovaries.

Mr. J. Knowsley Thornton, Surgeon to the Samaritan Free Hospital for Women and Children, reports (*Med. Times and Gaz.*, April 7, 1877) the case of a lady, aged 38, who was suffering from a much-enlarged uterus with outgrowths, the removal of which offered the only possible hope of cure. The operation was performed on January 10th, under bichloride of methylene. "The patient being placed on her back as for ovariotomy, I made an incision four inches long through the parietes, commencing about two inches below the navel. The hemorrhage was very free (even after the main bleeding points had been temporarily secured with Mr. Wells's artery forceps), and the flaccid red intestines lying immediately under the exposed peritoneum rendered the opening of the latter difficult, especially as the afternoon was very dark and foggy. When I had completed the section of the peritoneum, my attention was at once attracted by some small bubbles of gas and a drop of brown fluid on the surface of a coil of intestine. I seized it and sponged it, and found the point of my knife had slightly wounded it. I closed it by a continuous suture of fine silk carried backwards and forwards across the puncture through the peritoneal coat, and for some distance beyond each end of the wound.

"This mishap delayed the operation somewhat, and a good deal of intestine was forced out, so that I had to carry my incision an inch higher up, and even

then had some difficulty in returning the intestines, the patient not passing well under the influence of the methylene, and keeping up a sort of gasping abdominal respiration. Passing my hand into the abdomen, I found the pelvic portion of the tumour so nearly filling its cavity that I could not dislodge it until I had pressed the mass on the left side through my incision, and used it as a lever by pressing it forcibly over the left iliac crest. This showed how hopeless any attempt to push up the pelvic portion without abdominal incision was. Having at last succeeded in getting the pelvic portion raised into the abdomen, I passed a strong double-string ligature through the left half of the mass just at its junction with the pelvic mass, and having tied each of the strings tightly (taking care that they crossed one another at their point of insertion), I cut away the left half, and thus gained room to transfix the broad ligament on each side with a double ligature of strong silk—each transfixion being made so that the silks when tied included the base of an ovary with the tube. The ovaries were then cut away—a cyst about the size of a pigeon's egg, which sprang from the right one, bursting during the removal.

"The broad ligament on the left side retracted, somewhat towards the tumour, and free hemorrhage occurred, requiring the application of a temporary clamp, after the removal of which one or two large vessels were tied separately. Nothing now remained but to deal with the remains of the uterine tumour, and this I did by transfixing the cervix just above the vagina with a curved needle armed with a double ligature of the same silk as I had previously used for the broad ligament. Each half was then firmly tied, and the mass cut away with the knife. No hemorrhage followed, but I thought the stump rather large, and pared it with the scissors; this caused a slight oozing, and I therefore passed one of the ligatures round the whole stump, and securely tied it. Very little blood was lost, and only the pelvis required sponging. I left a sponge over the uterine stump during the introduction of the seven silk sutures with which the incision was closed, and on withdrawing it found it dry, and therefore closed the abdomen. All the ligatures were cut off short, and left with the stumps free in the peritoneal cavity. The operation occupied rather more than an hour and a half, much time being lost from the difficulty in keeping the intestines back after closing the puncture—a difficulty increased by the necessity for handling them very carefully lest anything should be squeezed out between the sutures in the wounded part. On the twenty-seventh day after the operation, the patient was on the couch, and two days later went to the Convalescent Home.

"I believe this is the first case in which the uterus and both ovaries have been successfully removed, all the pedicles being ligatured with silk and left free in the peritoneum; and a few words are necessary as to my reason for adopting this method in preference to some of those which have proved successful in the hands of Wells, Keith, Péan, and others. I had watched the excellent results obtained in ovariotomy by Mr. Spencer Wells with the silk ligature, even when the stump of tissue left was considerable, and had confirmed my favourable opinion of it by several ovariotomies of my own in which I had used it; and I had also twice seen Mr. Wells successfully remove small fibroid outgrowths from the uterus after transfixing and ligaturing their base with thick Chinese silk.

"With such experiences, and having anxiously studied the published cases of Péan and others, I came to the conclusion that the silk ligature was the best thing to use for the pedicles in the case which I have recorded. It has the advantage of being applicable in all cases; whereas Mr. Wells's ovariotomy clamp, the various serre-nœuds and écraseurs, wire, or wire and pins, can only be used in certain special cases. The only one of these methods which it would have been possible to apply in my case would have been a sort of half intra-, half extra-peritoneal

method with wire, écraseur, or serre-nœud; and I think the pedicle should be either entirely extra- or entirely intra-peritoneal. I prefer the latter, as I think there is less danger of septicæmic infection; and there is not the danger from hemorrhage when the clamp or wire separates a danger which experience shows to be by no means a small one.

"I venture to think this case proves that the silk ligature is to be depended upon, and is worthy of further trial. At the same time, I am fully aware that one successful case of this kind is no good ground for establishing the superiority of one method of treatment; and probably, as in ovariotomy, so in hysterotomy, it will be found advisable to apply different methods in different cases.

"I have not alluded to the cautery for division of the pedicle, because I have had no experience with it, and I cannot see that it possesses any advantage over the ligature, and it certainly has several disadvantages. The fact that it is sometimes necessary to ligature some vessels, after removing the cautery clamp, being, to my mind, the most serious objection, as the ligatures are applied to parts of which the vitality is already much weakened, if not destroyed, by the heat."

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The Diagnosis of Cysts of the Broad Ligament.

Prof. Gusserow records (*Archiv für Gynäkologie*, B. ix. H. 3, and B. x. H. 1) a case of cyst of the broad ligament in which the cyst again filled after tapping, and was then extirpated. The patient was seventeen years old, had menstruated regularly since the age of fourteen, and the abdomen had been enlarging for two years. The abdomen was greatly distended, and uniform fluctuation extended all over it. In the middle line there was dulness up to a hand's-breadth from the ensiform cartilage. In the flanks there was resonance only on the left side, low down. The uterus was movable, turned rather to the left side. A segment of the tumour could be reached to the right of the cervix. The tumour was emptied by tapping, 70 ccm. of watery fluid being removed. It had a specific gravity of 1002, contained a small quantity of albumen and salts, no paralbumen nor mucin. On bimanual examination after the tapping, both ovaries could be made out, the right ovary being somewhat in front and to the right of the fundus, towards the symphysis. Examination by half the hand in the rectum revealed nothing further; no trace of the cyst or adhesions could be detected. The diagnosis was that of a cyst of the broad ligament on the right side. No return of the swelling was observed for four months, but it then began to increase again; and at the end of eight months was fully as large as before. Extirpation was therefore resolved on. At the operation two adhesions to the omentum were divided, and the cyst emptied of a fluid similar to that found before. Contrary to the diagnosis, the pedicle was found to be on the left side. It was very short, and 16 cms. (6¼ inches) broad, consisting evidently of two layers of peritoneum, which were inseparable from the outer cyst-wall. It was tied by ten catgut sutures, and some large veins in it were also tied with silk. The patient recovered without any bad symptoms, the temperature never rising above 37.5° C. The cyst was quite simple, and was lined with cylindrical ciliated epithelium. No muscular fibres were found in its wall. The Fallopian tube was stretched over the cyst-wall, and extended to a length of 25 cm. (9¾ inches). Both ovaries were felt to be intact after the cyst had been removed.

The author reviews the various signs which are given as distinctive of cysts of broad ligament—namely, that they occur in young women whose general health is little affected, contain a watery fluid of a specific gravity less than 1005, free from paralbumen or mucin, that the epithelial lining is ciliated in parts, that the cyst-wall contains involuntary muscular fibres, is often very thick, and is separable into two layers. He believes that none of these are absolutely distinctive

during life, although they are generally true, and considers that the diagnosis cannot be made absolute, except by feeling both ovaries to be of normal size, after the emptying of the cyst. He has himself found, in some cases of difficult diagnosis, the fluid of a true ovarian cyst to be poor in albumen, and quite free from paralbumen, and on the other hand has, in two cases, found paralbumen present in ascitic fluid. In confirmation of this, he quotes the experience of Westphalen and Heine. He points out that the opinion of Mr. Spencer Wells and Dr. Bantock, that cysts of the broad ligament never fill again after tapping, is not fully confirmed by experience, as shown in the case recorded. Moreover, Dr. Charles Clay, out of forty cases in which the fluid removed was thin and watery, observed a refilling in six; Dr. Keith has extirpated a cyst of this kind which had refilled five times, and Spiegelberg has also removed one after repeated tapping. The nature of the fluid will generally establish a correct diagnosis, and Koeberle, who considers that such cysts should always be extirpated, has successfully removed two, by enucleating them from their peritoneal investment, having previously made a right diagnosis. But in one case of cyst of the broad ligament exactly described by Spiegelberg (*Archiv für Gynäk.* i. s. 482), which had a thick wall of two layers, containing involuntary muscular fibres and lined by ciliated epithelium, the fluid contained resembled that of an ovarian cyst, and contained paralbumen and cholesterine. As to the source of cysts of the broad ligament, the author regards the question as unsettled as yet, whether they originate from the parovarium, or, as maintained by Waldeyer, from a remnant of the Wolffian body.—*Obstetrical Journal of Great Britain*, April, 1877.

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Three hundred additional Cases of Ovariotomy: with Remarks on Drainage of the Peritoneal Cavity.

Mr. T. SPENCER WELLS, at a late meeting of the Royal Medical and Chirurgical Society (*British Medical Journal*, March 3, 1877) read a paper with the above title. He had arranged in a table, similar in form to those in which he had brought five hundred cases of ovariotomy before the Society between 1859 and 1872, three hundred additional cases, representing the whole of his practice, from the five hundredth to the eight hundredth case; distinguishing the cases performed in the Samaritan Hospital from those in private houses and in nursing institutions. The mortality in the sixth series of one hundred cases was twenty-eight; in the seventh and eighth, twenty-four. This very nearly corresponded with the general mortality in the five hundred cases previously reported. But the author believed that the latter series comprised many more operations, in proportion, performed under very unfavourable or almost hopeless conditions. In many cases, where formerly he thought it right to put so very unfavourable a prognosis before a patient and her advisers that they probably did not desire or approve of operation, he had latterly been encouraged by recoveries in some cases apparently almost hopeless to express a more hopeful opinion; and, although in some cases very unexpected recoveries had been recorded, the result had often been what was feared, and the influence upon the number of deaths in proportion to the recoveries was quite appreciable. The author then discussed the influence of drainage of the peritoneal cavity—this most important of recent modifications of operative procedure—upon the results. He traced the history of the practice from the early days of ovariotomy, when drainage by the ligature securing the pedicle was the rule of practice, to its disuse when the extraperitoneal treatment of the pedicle and the intraperitoneal method by ligature or cautery were very generally adopted. He considered the occasional use of puncture and drainage, with or without simple or antiseptic injections, when called for after operation, to be no foundation for recent recommendations, to pre-

pare at the time of operation for drainage or injection in every case. Of the three hundred cases now brought before the Society, he had only made provision for drainage at the time of the operation in eight; and in only eleven other cases did fluid afterwards escape by opening of some portion of the wound, or by vaginal puncture. In some few of the fatal cases, he thought either primary or secondary drainage might have been useful; but he believed drainage should not be a general practice in ovariotomy, but should be reserved for the exceptional cases where collections of blood or serum might be expected to follow the operation. Mr. Wells then described the different modes of draining, and of using simple or antiseptic injections, reserving for another communication the important question of the more complete adoption of antiseptic precautions before, during, and after ovariotomy.

Mr. Bryant had used drainage in five cases; in four the result was good, and in three of them he had no doubt that it was due to the use of the drainage-tube. There were in the three cases extensive adhesions, the removal of which was followed by much redness of the peritoneum and considerable oozing of blood. He had used a glass tube in three of the cases, and a hardened India-rubber tube in the other.

Mr. Thomas Smith said that he could ask Mr. Wells a number of questions, but would confine himself to a few. It was possible that certain statistical results might be obtained at the expense of the sacrifice of the lives of those affected; any such statistics as those of Mr. Wells might lead more timid operators to refuse bad cases, and attempt to obtain favourable tables of statistics—an endeavour which he deprecated. On the other hand, the earlier ovariotomy statistics of the Samaritan Hospital had been compared with those of the large hospitals, to show that, while in the former the mortality had been 21 per cent., in the latter it was 76 per cent. But the success in the general hospitals was not so great then as now; and, further, there were two ways of estimating the fatal results of ovariotomy. In the general hospitals, all the deaths were put down as fatal cases of ovariotomy—there being included under this head three classes: 1, completed ovariotomy; 2, cases where the operation was proceeded with to a certain extent but not complete; 3, cases where only an exploratory excision was made. The statistics of the Samaritan Hospital included only cases of completed ovariotomy. He thought that the rate of mortality would be much increased by taking into account the incompleted operations and exploratory incisions. Again, the experience of one most skilled in the operation was compared with that of various men, some well qualified to perform it, and others as disqualified. There were some things which the general hospitals could do, and some which they could not. They could, no doubt, obtain as good sanitary conditions as at the Samaritan Hospital; but they could not obtain such good nursing and medical supervision. The success of the Samaritan Hospital was a personal success; it depended on experience, on a sound and quick exercise of judgment, on the possession of resources to meet emergencies and of courage to face dangers; and with these there was a modesty which did not seek to make success in ovariotomy an occasion of public display. To these qualities Mr. Wells owed his success; and he had probably done more to diminish suffering than any other man. He would ask whether Mr. Wells introduced the drainage-tube because much fluid was present or because much was expected; and how he would deal with a cyst behind the broad ligament.

Mr. Hulke said that some years ago several cases of ovariotomy were performed in the Middlesex Hospital, the patients being placed in the general wards; and all, he believed were fatal. Since the patients operated on had been placed in a special ward, the mortality had been much less; he had had four recoveries out of six operations.

Dr. GRAILY HEWITT congratulated Mr. Wells on the success which he had obtained. He had himself done about twenty-five completed operations; but his results, though satisfactory, were less so than those of Mr. Wells. He thought that Mr. Wells was correct in attributing the comparatively high mortality in his last three hundred cases to the large proportion of bad cases sent to him. With regard to the management of the pedicle, he was in favour of bringing it outside the wound. Any room that might exist for improvement of the operation lay in the treatment of the pedicle.

Sir JAMES PAGET said that it was most gratifying to him that on the last occasion of his presiding at an ordinary meeting of the Society, such a paper as that of Mr. Wells should have been read. He regarded ovariotomy, as practised by Mr. Wells, as one of the greatest achievements of modern surgery; it must be measured not only by Mr. Wells's own success, but by the greatly increased success of all other surgeons. The improvement in ovariotomy had made surgeons much wiser than they previously were on all matters relating to peritoneal surgery; and not only so, but the influence for good had been extended to surgery in general.

Mr. SPENCER WELLS, in reply, said it did not follow that, because a great deal of fluid escaped when a tube was used, as much fluid would collect if a tube had not been used. It was quite possible that the presence of a tube might lead to the secretion of the fluid which escaped, or at least increase secretion. He should not use a tube simply because ascites had been present, or ovarian fluid had been free in the peritoneal cavity. He should restrict its use to cases where the peritoneal cavity could not be completely cleansed, or where some bleeding might be feared after closure of the abdominal wall. If fluid collected some days after the operation, and formed a swelling between the uterus and the rectum, it could easily be removed by a trocar introduced through the vaginal wall. In cases of mesenteric cysts, or cysts of the broad ligament, the treatment by enucleation or drainage must be decided by the peculiarities of each case. The publication of medical details, in the annual reports of hospitals circulated to the public, was open to very grave objection, and Mr. Wells had opposed the use of such details in the reports of the Samaritan Hospital; but he did believe that they had been of great use in stimulating the surgeons of general hospitals to a generous rivalry: and in proving that, if they did not wish to be outdone by smaller institutions, they must pay equal attention to the sanitary condition of the wards, to the nursing of the patients, and to all the details of management which could influence results. The success in the Samaritan Hospital could not be now, as it might have been perhaps, what Mr. Smith called a "personal success;" for, out of the fifty-five operations performed in 1876, his colleagues, Mr. Thornton and Dr. Bantock, had contributed fourteen recoveries and only one death; whereas, of his own forty cases in the year, four had died. The practice of grouping together cases of completed ovariotomy with cases of incompleted operations, or of mere exploratory incisions, could not be justified. It would be absurd to say that a patient who recovered for a time after an incision in the abdominal wall and the escape of some fluid from the peritoneum, was a successful case of ovariotomy—no ovarian tumour having been removed, or perhaps existed. And, whether the result in statistical tables was favourable or the reverse, an incomplete operation should be recorded in a separate list, and should not be allowed to lead to false estimates of the mortality of ovariotomy when completed. The important question of antiseptics in this operation must be left for further observation. Mr. Wells, on completing his eight hundredth operation, had almost decided to try one hundred cases in succession with every antiseptic precaution; and if he had done so, and had attained the same result as he had done

without any alteration in his former practice, the conclusion would have been quite startling; for he had done twenty-seven cases since the eight hundredth, and so far not one had died. If this had happened under antiseptics, it would have been almost impossible to resist the conclusion that it was something more than a coincidence. Mr. Wells thanked the Society for the manner in which his paper had been received, and especially thanked Sir James Paget for his very kind remarks, which would more than repay any surgeon for years of hard work.

On Twenty-five Cases of Ovariotomy, with some Remarks on the Causes and Treatment of the Fever so frequently following the Operation.

At a late meeting of the Royal Medical and Chirurgical Society, Mr. J. Knowsley Thornton read (*Lancet*, June 2, 1876) a paper with this title referring to the smallness of the table of cases as compared with the one lately given to the Society by Mr. Spencer Wells, the author said it was nevertheless impossible to deal with all the features of interest in the individual cases. For many of the cases he was indebted to Mr. Wells, and to the fact that he had assisted Mr. Wells in the greater number of the 300 cases he was indebted for much of the knowledge which had enabled him to attain fair success. The author then drew attention to the fever so frequently following ovariotomy—defining fever as any temperature between 100° and 103° F.; above this, high fever. He believed there was a simple fever distinct from that caused by peritonitis or septicæmia, but liable to lead to serious lesions in important organs if not checked. Attributing this form of fever chiefly to the sudden increase in the volume of blood circulating in the body after the removal of the large circulating area contained in the tumour, he pointed to the various organs which might suffer, drawing especial attention to the brain as receiving a large blood-supply. The treatment of this form of fever must be especially directed to the control of the circulation and lowering of temperature. The readiest means of effecting this object was by the application of dry cold to the head. Briefly sketching the history of the use of coiled tubing conveying iced water, he showed how he was led to the use of the ice-water cap for the fever after ovariotomy. While giving due praise to the use of bloodletting and aconite, he believed if the ice-water cap was used early and efficiently they could be dispensed with. The author then referred to the differential diagnosis of this simple fever and the fever accompanying peritonitis or septicæmia, drawing especial attention to the tranquil expression of the patient with the former. He then referred to some of the cases in the table to illustrate the use of the ice-water cap (of which an engraving accompanied the paper), remarking that they were none of them quite typical of the condition he had described, because, having had considerable experience in the after-treatment of cases of ovariotomy before he operated himself, he always put on the cap early, "prevention being better than cure." In conclusion he gave a short analysis of the cases in the table, alluding especially to the large proportion of complicated cases and double operations, in spite of which the mortality was only 28 per cent. Some of the cases were almost hopeless from the nature of the adhesions and the state of the patient, but he thought right to give them the last chance of life.

Mr. Spencer Wells asked for the experience of other surgeons with regard to the effect of the application of ice to the head in other cases of traumatic fever. It was now systematically employed at the Samaritan Hospital, and he was led to its employment by the fact that much of the danger of ovariotomy was due to fever rather than to peritonitis. He at first used the wet pack, a method which had the great disadvantage of disturbing the patient; then, on Dr. Richardson's suggestion, he employed applications of ice to the neck, by a sort of collar containing ice. Then Mr. Thornton suggested the adaptation of the India-rubber

coil in the form of a cap; and Mr. Wells was certain this method unquestionably lessened the mortality after ovariotomy. One objection to its use in private practice lay in the quantity of ice it required, and the constant attention on the part of the nurse. Another, and more economical, method was the use of a sort of helmet containing ice.

Sir JOSEPH FAYRER considered the invention to be a most valuable one, and pointed out its great utility in cases of ardent fever, and of insolation. In such cases the use of cold affusion and bladders containing ice would be superseded by this new appliance.

Dr. HEYWOOD SMITH agreed with Mr. Thornton that the fever was generally more marked in young subjects, and where the ovarian cyst was freely supplied with blood. He had himself used the ice-cap with great benefit, and thought that venesection, when performed at the proper period, was of great value in lowering the rate of the pulse. But it should be performed only when it was clearly indicated. He inquired as to the *modus operandi* of the application of ice. He had known such application to the sacrum to have the effect of increasing the menstrual flow, as if it acted directly upon the nerve-centre controlling the blood-supply to the uterus; and he had also seen profuse uterine hemorrhage checked by hot applications to the region. He referred to the tincture of veratrum viride as being equally useful with aconite in lowering the pulse.

Dr. CHARLES WEST said that the great value of the paper lay in the suggestions it contained as to other matters beyond that simply of ovariotomy. Thus it raised the question of fever *per se*; and the distinctions between simple fever and fever complicated with septicæmia, peritonitis, etc., were clearly laid down. One of the tendencies of the present cultivation of high scientific knowledge was to neglect those signs of the broad differences in fevers which gave medicine so high a position in the days of Sydenham. He agreed with Sir Joseph Fayrer as to the great value of the ice-water cap in insolation, which was not uncommon in children even in this country.

Mr. KNOWSLEY THORNTON said that he claimed no originality for the cap. The use of a coil to transmit iced water for the purpose of reduction of body-heat had been advocated by Dr. Roberts, of Manchester, and the cap was in the first instance devised by a workman at Edinburgh. As a rule, three or four days sufficed to reduce the temperature, and he thought that the tendency to sickness was as certainly controlled by the cap as by the application of ice to the neck. He agreed with Dr. Routh, that bleeding was contraindicated in septicæmia, and with Dr. H. Smith, that it was only usefully employed at a certain time. He admitted that aconite was useful in cases which were not examples of septicæmia; and as to the method of ice employment, he had followed Mr. Wells's practice. He agreed as to the influence of the nervous system in exciting and maintaining the febrile state, and thought that quiet was of paramount importance to the patients. The question as to the comparative utility of the clamp and the ligature in securing the pedicle was not yet ripe for decision. In the present series of cases many were examples of double ovariotomy, and in some the ligatures had been used for one pedicle, and the clamp for the other.